ABSTRACT OF THE DISCLOSURE

~~The invention provides a~~ A catalyst component for ethylene polymerization, ~~comprising~~ including an inorganic oxide support, and at least one alkyl metal compound, at least one halide, at least one dihydrocarbyl magnesium compound, at least one ~~difuntional~~ difunctional compound that reacts with the dihydrocarbyl magnesium compound and at least one titanium compound, wherein the difunctional compound is a mono-, di- or multi-halgenated alcohol or phenol having from 2 to 20 carbon atoms; or a mono-, di- or multi-halogenated acyl halide having from 2 to 20 carbon atoms. ~~The invention also relates to~~ Also, a process for preparing the catalyst component and use thereof. ~~The catalyst comprising the catalyst component exhibits good hydrogen response and activity balance, and that the amount of static charges carried by the catalyst solid component powders is remarkably reduced will facilitate the industrial-scale operation of polymerization.~~